

AL POLLUTION PREVENTION QUARTERLY REPORT

The purpose of this report is to track and acknowledge the DOE Albuquerque Operations Office (AL) sites' considerable efforts to be conscientious environmental and fiscal stewards through their Pollution Prevention (P2) Program activities. This report is intended to share information on successful P2 activities, to ensure integrated and cost effective AL P2 efforts, and to inform management of AL P2 activities, progress, and issues.

Data for this report is derived from AL P2 activities and accomplishments submitted to the DOE Headquarters (HQ) Pollution Prevention Team (EM-22) P2 database for the first, second, and third quarters of FY00. For additional information the web site address is: <http://twilight.saic.com/wastemin>.

Program Summary

- AL sites reported a total of 38 new and 31 on-going P2 projects in the third quarter. Excluding wastewater, a total of 4,733 cubic meters of waste was reduced through P2 projects. The waste type most reduced this quarter was hazardous waste followed by sanitary, low-level, mixed low-level, and TRU wastes, respectively.
- Third quarter cleanup/stabilization (C&S) waste reduction totaled 2,847 cubic meters. The AL EM FY00 commitment was to reduce 1,731 cubic meters of C&S waste. This number was based on estimated AL C&S waste generation of 17,310 cubic meters in FY00 and the secretarial goal calling for a 10% reduction of this waste through P2 activities. Total reported C&S waste reduction for the first 3 quarters of FY00 is 18,183 cubic meters.

Program Issues and Upcoming Events

- America Recycles Day is scheduled for November 15, 2000. AL P2 is participating as a sponsor of the New Mexico Recycling Coalition activities throughout the State. AL sites are encouraged to participate in their State and local community events.
- On August 15-16, 2000, the AL P2 Program, with support from the LANL and SNL P2 programs, hosted a complex-wide planning meeting to develop the DOE P2 2001 Conference program. The DOE P2 2001 Conference will be held in Albuquerque on June 18-22, 2001. The conference will build on the success of the November 1999 conference and continue the theme of "Moving Toward a Pollution-Free DOE." The conference will focus on "Greening the DOE" through implementation of the Greening the Government Executive Orders goals and requirements.
- The AL P2 program has been working with LANL and SNL on establishing P2 program performance measures for FY01 based on the Core performance expectations developed by WM/P2, the Secretary's P2/E2 goals, and emphasis on continuous improvement. We are awaiting FY01 P2 performance measures data from Pantex. KCP data was provided in their FY01 workplan submission.
- Results from the ROI workshop held at HQ on June 29, 2000 indicate that AL was successful in possibly obtaining funding for a number of P2 projects submitted through the ROI initiative. It is anticipated that funding for the projects listed below will be provided by EM-50 in FY01 if EM-50 receives their full budget request, which appears likely at this time. It has also been rumored, but not confirmed, that money for some of the approved projects will be provided in this FY. It has not yet

AL Pollution Prevention Quarterly Report

Third Quarter – FY 2000

been determined how this money will be provided to the sites. The following AL projects were approved for receiving EM project funds:

- 1) Pantex – In-Situ Natural Biodegradation of Highly Explosive Contaminated Soil - \$550K
 - 2) LANL – Field Demonstration of Multiple Permeable Reactive Barrier - \$800K
 - 3) LANL – Dry Ice Blasting for Large Item Decon Operations - \$250K
 - 4) LANL – Concrete Recycling - \$151K
- HQ indicated that the DOE P2 awards ceremony will be held in Washington DC on October 11 at the Forrestal Building. This will be a joint P2/E2 awards ceremony, the awards winners for this event where chosen in earlier this year. Further details on the ceremony will be provided.

FY00 Third Quarter AL P2 Performance

Ongoing or significant P2 accomplishments from prior quarters are not generally reported a second time, unless exceptional progress has been made during the current reporting period. Significant third quarter FY00 accomplishments include:

- LANL reduced waste volumes by 2,546.2 metric tons of hazardous waste resulting in savings of \$2.2M through recycling and reuse initiatives at MDA-P under the ER project. This effort included reuse of hazardous materials for fill, concrete recycling, scrap metal recycling, and reuse of decontaminated water and storm water for dust suppression.
- LANL was able to reclassify 24.5 cubic meters of MLLW to LLW by segregating RCRA waste from recyclable metal; resultant savings from \$265,000.
- SNL/NM recycled/reused 33 metric tons of hazardous waste by decontaminating and recasting lead under the 1999 ROI Project.
- The Pantex Plant continued its wastewater source reduction via the modifications made to the chlorine injection system at the sewage treatment facility. The third quarter waste reduction was 12,681 metric tons, with a waste avoidance of \$5,695.
- Grand Junction recycled spent vehicle lead-acid batteries, resulting in a waste avoidance of 350 metric tons of sanitary waste.
- The Kansas City Plant consolidated operations of two foam products departments resulting in reuse of hydraulic fluid elsewhere at the plant and the sale of heat transfer fluid to a reclaimer. The waste reduction was 20.3 metric tons of sanitary waste and a savings of \$10,500.
- The WIPP Project continued its sanitary waste recycling/reuse programs, resulting in waste reduction of 33.43 metric tons for the third quarter.

AL Pollution Prevention Quarterly Report

Third Quarter – FY 2000

New and ongoing AL P2 projects and associated waste reduction and cost savings for FY00 and for the third quarter of FY00 only are shown in the tables below.

FY00 AL Pollution Prevention Project Summary							
P2 Activity Type	Waste Type	Total Projects				Waste Reduction for FY (M ³) ^[1]	Savings for FY (\$)
		New Projects	Ongoing Projects	Cleanup/Stabilization	Routine Ops		
Source Reduction	HAZ	5	2		7	34.68	\$335,660
	LLW		1		1	7.95	\$8,000
	SAN ^[2]		1		1	37.68	\$5,070
	WW-SAN	2	2	1	3	35,647.19	\$110,533
	TRU	3			3	2.75	\$43,610
Total		10	6	1	15	35,730.25	\$502,872
Segregation	LLW	1	1		2	363.50	\$577,965
	MLLW	1	1	1	1	13.30	\$997,500
Total		2	2	1	3	376.80	\$1,575,465
Recycle/Reuse	HAZ	9	12	3	18	4,019.14	\$3,819,166
	LLW	3		1	2	362.86	\$576,470
	MLLW	5		5		45.90	\$499,700
	Other	1			1	0.00	\$0
	SAN ^[2]	14	17	4	27	22,927.15	\$630,056
	TRU	1			1	2.00	\$116,000
Total		33	29	13	49	27,357.05	\$5,641,391
Programmatic	Other	3			3	47.00	\$0
	SAN ^[2]	1			1	0.00	\$0
Total		4	0	0	4	47.00	\$0
AL COMPLEX TOTAL		49	37	15	71	63,511.10	\$7,719,729

^[1] Hazardous wastes and sanitary waste are measured in metric tons; all other waste types are measured in cubic meters. Quantities indicated in this table assume that one metric ton is equivalent to one cubic meter.

^[2] Includes sanitary wastewater

AL Pollution Prevention Quarterly Report

Third Quarter – FY 2000

Third Quarter FY00 AL Pollution Prevention Project Summary							
P2 Activity Type	Waste Type	Total Projects				Waste Reduction for Qtr (M ³) ^[1]	Savings for Qtr (\$)
		New Projects	Ongoing Projects	Cleanup/Stabilization	Routine Ops		
Source Reduction	HAZ	4	2		6	15.35	\$169,708
	LLW					0.00	\$0
	SAN ^[2]		1		1	12.56	\$1,690
	TRU	3			3	2.75	\$43,610
	WW-SAN	2	2	1	3	12,703.78	\$62,803
Total		9	5	1	13	12,734.44	\$277,810
Segregation	LLW		1		1	12.10	\$19,239
	MLLW	1			1	1.85	\$138,750
Total		1	1	0	2	13.95	\$157,989
Recycle/Reuse	HAZ	6	10	2	14	2,813.84	\$2,497,430
	LLW	1			1	100.00	\$159,000
	MLLW	5		5		45.90	\$499,700
	Other	1			1	0.00	\$0
	SAN ^[2]	12	15	3	24	1,679.15	\$117,051
	TRU	1			1	2.00	\$116,000
Total		26	25	10	41	4,640.89	\$3,389,180
Programmatic	Other	2			2	47.00	\$0
Total		2	0	0	2	47.00	\$0
AL COMPLEX TOTAL		38	31	11	58	17,436.28	\$3,824,980

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AL Pollution Prevention Quarterly Report

Third Quarter – FY 2000

Individual Site Accomplishments

The first two tables below represent a roll-up summary of AL P2 accomplishments by site; the first table combines the first, second, and third quarters of FY00 and the second table is for only the third quarter of FY00. Subsequent tables indicate third quarter FY00 accomplishments for the individual AL sites. Additional accomplishment information is available at the EM web site, at <http://twilight.saic.com/WasteMin/MainReports.htm>.

AL Site P2 Reported Performance - FY00			
Site	# of Reported Accomplishments	YTD Reductions ^[1]	YTD Savings (\$)
Grand Junction Office	6	1,767.68	\$0
Kansas City Plant	3	25.60	\$14,725
Los Alamos National Laboratory	37	4,682.10	\$6,510,323
Pantex Plant	18	41,835.68	\$881,179
Sandia National Laboratories-CA	0	0.00	\$0
Sandia National Laboratories-NM	10	15,079.74	\$311,551
WIPP	12	120.30	\$1,951
Total	86	63,511.10	\$7,719,729

AL Site P2 Reported Performance - Third Quarter FY00			
Site	# of Reported Accomplishments	Qtr Reductions ^[1]	Qtr Savings (\$)
Grand Junction Office	4	683.80	\$0
Kansas City Plant	1	20.30	\$10,500
Los Alamos National Laboratory	31	3,156.71	\$3,613,546
Pantex Plant	14	13,453.11	\$162,111
Sandia National Laboratories-CA	0	0.00	\$0
Sandia National Laboratories-NM	7	88.93	\$37,719
WIPP	12	33.43	\$1,104
Total	69	17,436.28	\$3,824,980

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AL Pollution Prevention Quarterly Report

Third Quarter – FY 2000

Grand Junction Office Third Quarter FY00 Accomplishments						
Accomplishment	P2 Activity Type	Waste Type	Routine or Cleanup Work	New or Ongoing Project	Waste Reduction for Qtr (M3) ^[1]	Savings for Qtr (\$)
Return of unneeded sodium iodide detectors to manufacturer for reuse.	Recycle/reuse	HAZ	Routine	New	198.00	\$0
Lead-acid batteries recycling	Recycle/reuse	SAN	Routine	New	127.00	\$0
Miscellaneous recycling	Recycle/reuse	SAN	Routine	New	8.80	\$0
Spent vehicle lead-acid batteries recycling	Recycle/reuse	SAN	Routine	New	350.00	\$0
Recycle/reuse Total	4				683.80	\$0
Qtr P2 Avoidances/Savings	4				683.80	\$0

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Kansas City Plant Third Quarter FY00 Accomplishments						
Accomplishment	P2 Activity Type	Waste Type	Routine or Cleanup Work	New or Ongoing Project	Waste Reduction for Qtr (M3)[1]	Savings for Qtr (\$)
Operations consolidation of two foam products departments resulting in reuse of hydraulic fluid elsewhere at plant and sale of heat transfer fluid to reclaimer	Recycle/reuse	SAN	Routine	New	20.30	\$10,500
Recycle/reuse Total	1				20.30	\$10,500
Qtr P2 Avoidances/Savings	1				20.30	\$10,500

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AL Pollution Prevention Quarterly Report

Third Quarter – FY 2000

Los Alamos National Laboratory Third Quarter FY00 Accomplishments						
Accomplishment	P2 Activity Type	Waste Type	Routine or Cleanup Work	New or Ongoing Project	Waste Reduction for Qtr (M3)[1]	Savings for Qtr (\$)
Elimination of solvent use for cleaning equipment parts by installing hot-water automatic parts washer at JCNNM Heavy Equipment Shop	Source Reduction	HAZ	Routine	New	2.58	\$30,315
GSAF 99 nitric acid recovery with MST-7	Source Reduction	HAZ	Routine	New	0.10	\$1,175
Maintain coolant peak performance indefinitely without the use of biocides using a combination of oil skimming, filtration, testing, and treatment	Source Reduction	HAZ	Routine	New	10.40	\$122,200
Photochemical waste reduction	Source Reduction	HAZ	Routine	New	0.75	\$8,813
Phone books on the web	Source Reduction	SAN	Routine	Ongoing	12.56	\$1,690
Reduction of TRU liquid waste generation during fabrication of Pu-238 heat sources by adjusting pH of waste stream	Source Reduction	TRU	Routine	New	0.75	\$43,500
Eliminated generation of oil and plastic as TRU due to replacement of oil bubblers with flow meters on the the Argon Gas Flow System for Exchange and Sintering Furnaces	Source Reduction	TRU	Routine	New	0.00	\$110
Pu-238 waste solution volume minimization	Source Reduction	TRU	Routine	New	2.00	\$0
Reduction in changing of activated carbon in the High Explosive Wastewater Treatment Facility due to change from batch operations to continuous wastewater recirculation	Source Reduction	WW-SAN	Routine	New	1.81	\$36,268
Source Reduction Total	9				30.95	\$244,070
Green is clean	Segregation	LLW	Routine	Ongoing	12.10	\$19,239
Sorting, segregation, recycle, and reuse of MLLW electronic equipment	Segregation	MLLW	Routine	New	1.85	\$138,750
Segregation Total	2				13.95	\$157,989

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AL Pollution Prevention Quarterly Report

Third Quarter – FY 2000

Los Alamos National Laboratory Third Quarter FY00 Accomplishments (Concluded)						
Accomplishment	P2 Activity Type	Waste Type	Routine or Cleanup Work	New or Ongoing Project	Waste Reduction for Qtr (M3)[1]	Savings for Qtr (\$)
Reduced waste volumes through recycling and reuse initiatives at MDA-P under the ER project including reuse of hazardous materials for fill, concrete recycling, scrap metal recycling, and reuse of decontaminated water and storm water for dust suppression.	Recycle/reuse	HAZ	Cleanup	New	2546.22	\$2,217,759
Site-wide offsite recycle of hazardous materials	Recycle/reuse	HAZ	Cleanup	Ongoing	4.43	\$52,040
Oil recycling at TA-15 using GSAF funds	Recycle/reuse	HAZ	Routine	New	0.17	\$1,998
Paint thinner recycling	Recycle/reuse	HAZ	Routine	Ongoing	0.3	\$3,525
Site-wide oil recycling	Recycle/reuse	HAZ	Routine	New	9.12	\$107,160
Cardboard recycle, LLW avoidance	Recycle/reuse	LLW	Routine	New	100.00	\$159,000
Aerosol cans recycling	Recycle/reuse	MLLW	Cleanup	New	9.56	\$101,250
Lead slabs recycling	Recycle/reuse	MLLW	Cleanup	New	0.03	\$2,250
Reclassification of MLLW to LLW by externally decontaminating lead-lined casks	Recycle/reuse	MLLW	Cleanup	New	4.11	\$45,000
Reclassification of MLLW to LLW by segregating RCRA waste from recyclable metal	Recycle/reuse	MLLW	Cleanup	New	24.50	\$265,000
Reclassification of MLLW to LLW by segregating waste that could be processed as compactible LLW rather than MLLW	Recycle/reuse	MLLW	Cleanup	New	7.70	\$86,200
Reuse of LBNL's steel plates from decommissioned particle accelerator on LANL's new SMARTS	Recycle/reuse	Other	Routine	New	0.00	\$0
Reuse of gamma ray detectors by Cal Tech	Recycle/reuse	SAN	Cleanup	New	14.67	\$1,974
Site-wide brush reuse at landfill	Recycle/reuse	SAN	Cleanup	Ongoing	73.95	\$9,948
Site-wide metal recycling	Recycle/reuse	SAN	Cleanup	Ongoing	147.57	\$19,852
Cardboard recycle sanitary avoidance	Recycle/reuse	SAN	Routine	Ongoing	50.89	\$6,846
MS A1000- junk mail recycling	Recycle/reuse	SAN	Routine	Ongoing	53.24	\$7,162
Office paper recycling	Recycle/reuse	SAN	Routine	Ongoing	36.59	\$4,923
Trailers, metal drums, canisters, drum liners, and steel labels recycling	Recycle/reuse	SAN	Routine	New	26.76	\$3,600
Reduction of TRU liquid waste by utilizing a Pu-238 aqueous recovery glovebox line	Recycle/reuse	TRU	Routine	New	2.00	\$116,000
Recycle/reuse Total	20				3,111.81	\$3,211,486
Qtr P2 Avoidances/Savings	31				3,156.71	\$3,613,546

[1] Hazardous wastes and sanitary waste are measured in metric tons; other waste types are measured in cubic meters. Quantities indicated in this table assume that one metric ton is equivalent to one cubic meter.

AL Pollution Prevention Quarterly Report

Third Quarter – FY 2000

Pantex Third Quarter FY00 Accomplishments						
Accomplishment	P2 Activity Type	Waste Type	Routine or Cleanup Work	New or Ongoing Project	Waste Reduction for Qtr (M3) ^[1]	Savings for Qtr (\$)
Reducing oil changes by analyzing oil	Source Reduction	HAZ	Routine	Ongoing	1.00	\$5,205
ER low-flow sampling implementation	Source Reduction	WW-SAN	Cleanup	Ongoing	14.04	\$11,140
Modifications of chlorine injection at the sewage treatment facility	Source Reduction	WW-SAN	Routine	Ongoing	12,681.13	\$5,695
Source Reduction Total	3				12,696.17	\$22,040
Class 1 oil recycling	Recycle/reuse	HAZ	Routine	Ongoing	8.30	\$4,246
Class I solvent recycling	Recycle/reuse	HAZ	Routine	Ongoing	0.24	\$579
Fluorescent light recycling	Recycle/reuse	HAZ	Routine	Ongoing	1.33	\$0
Hazardous battery recycling	Recycle/reuse	HAZ	Routine	Ongoing	8.82	\$76,105
Hazardous scrap metal recycling	Recycle/reuse	HAZ	Routine	Ongoing	0.63	\$1,178
Hazardous solvents from high explosives synthesis processes recycling	Recycle/reuse	HAZ	Routine	New	0.38	\$4,132
Precious metals recycling	Recycle/reuse	HAZ	Routine	Ongoing	1.44	\$8,637
Routine hazardous solvents recycling	Recycle/reuse	HAZ	Routine	Ongoing	0.03	\$196
Asphalt recycling	Recycle/reuse	SAN	Routine	New	680.25	\$22,875
Nonhazardous scrap metal recycling	Recycle/reuse	SAN	Routine	Ongoing	46.45	\$973
Reduction in plant air emissions by destroying classified matter via a disintegrator versus burning	Recycle/reuse	SAN	Routine	New	9.07	\$21,150
Recycle/reuse Total	11				756.94	\$140,071
Qtr P2 Avoidances/Savings	14				13,453.11	\$162,111

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Sandia National Laboratories/California Third Quarter FY00 Accomplishments						
Accomplishment	P2 Activity Type	Waste Type	Routine or Cleanup Work	New or Ongoing Project	Waste Reduction for Qtr (M3) ^[1]	Savings for Qtr (\$)
Qtr P2 Avoidances/Savings	0				0.00	\$0

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AL Pollution Prevention Quarterly Report

Third Quarter – FY 2000

Sandia National Laboratories/New Mexico Third Quarter FY00 Accomplishments						
Accomplishment	P2 Activity Type	Waste Type	Routine or Cleanup Work	New or Ongoing Project	Waste Reduction for Qtr (M3) ^[1]	Savings for Qtr (\$)
Purchase of bio-soy oil from GSAF funds	Source Reduction	HAZ	Routine	Ongoing	0.52	\$2,000
Electronic x-ray system from 1999 GSAF funding	Source Reduction	WW-SAN	Routine	New	6.80	\$9,700
Source Reduction Total	2				7.32	\$11,700
Closed loop oil recycling from ROI funding	Recycle/reuse	HAZ	Routine	Ongoing	1.43	\$19,875
Lead decon and recasting under the 1999 ROI Project: Lead Reuse Projects	Recycle/reuse	HAZ	Routine	New	33.00	\$0
Reduction of coolant waste with implementation of coolant recycling systems from 1999 GSAF funds	Recycle/reuse	SAN	Routine	New	0.18	\$6,144
Recycle/reuse Total	3				34.61	\$26,019
Clean scrap lead reprocessing (2000 Lead Reuse Project)	Programmatic	Other	Routine	New	47.00	\$0
Energy savings and air pollutant reduction from allowing pump volume at Building 858 Chilled Water System to vary depending on seasonal load	Programmatic	Other	Routine	New	0.00	\$0
Programmatic Total	2				47.00	\$0
Qtr P2 Avoidances/Savings	7				88.93	\$37,719

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AL Pollution Prevention Quarterly Report

Third Quarter – FY 2000

WIPP Third Quarter FY00 Accomplishments						
Accomplishment	P2 Activity Type	Waste Type	Routine or Cleanup Work	New or Ongoing Project	Waste Reduction for Qtr (M3) ⁽¹⁾	Savings for Qtr (\$)
Aluminum cans, stainless steel, and tin recycling	Recycle/reuse	SAN	Routine	New	0.08	\$0
Anti-freeze recycling	Recycle/reuse	SAN	Routine	New	3.70	\$0
Cardboard recycling	Recycle/reuse	SAN	Routine	Ongoing	1.81	\$0
Donated computer equipment to local schools	Recycle/reuse	SAN	Routine	New	3.76	\$0
Fluorescent and high pressure sodium light bulbs recycling	Recycle/reuse	SAN	Routine	Ongoing	0.02	\$0
Pallets recycling	Recycle/reuse	SAN	Routine	Ongoing	1.81	\$0
Paper recycling	Recycle/reuse	SAN	Routine	Ongoing	5.90	\$0
Plastic recycling	Recycle/reuse	SAN	Routine	Ongoing	0.01	\$0
Sale of used batteries for recycling	Recycle/reuse	SAN	Routine	Ongoing	0.03	\$31
Toner cartridges recycling	Recycle/reuse	SAN	Routine	Ongoing	0.02	\$0
Unprepared steel and stainless steel sold for recycling	Recycle/reuse	SAN	Routine	Ongoing	16.23	\$1,073
Used oil recycling	Recycle/reuse	SAN	Routine	Ongoing	0.06	\$0
Recycle/reuse Total	12				33.43	\$1,104
Qtr P2 Avoidances/Savings	12				33.43	\$1,104

¹⁾ Hazardous wastes and sanitary waste are measured in metric tons; other waste types are measured in cubic meters. Quantities indicated in this table assume that one metric ton is equivalent to one cubic meter.